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FLOOD INSURANCE STUDY

CHEROKEE COUNTY, NORTH CAROLINA

UNINCORPORATED AREAS

FEBRUARY 2, 1989

Federal Emergency Management Agency

COMMUNITY NUMBER 370059

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

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FLOOD INSURANCE STUDY

CHEROKEE COUNTY,
UNINCORPORATED AREAS,
NORTH CAROLINA

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the Unincorporated Areas of Cherokee County, North Carolina, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the State (or other jurisdictional agency) will be able to explain them.

This Flood Insurance Study was prepared by compiling existing hydrologic and hydraulic technical and scientific data prepared by the Federal Emergency Management Agency (FEMA) for purposes of the National Flood Insurance Program and by other organizations for purposes other than the National Flood Insurance Program.

The data were identified as the best available at the time of compilation of this Flood Insurance Study and should depict the general conditions of the flooding sources with relative accuracy. FEMA performed a cursory review and accepted the data as valid for purposes of this Flood Insurance Study and the National Flood Insurance Program. However, if better information is known to exist or has been developed since the date of this report, the information should be immediately forwarded to the Natural and Technological Hazards Division, FEMA, Atlanta, Georgia, for consideration for revision of this study.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were obtained from the Tennessee Valley Authority (References 1-3).

1.3 Coordination

On March 10, 1988, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the community and FEMA.

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the unincorporated areas of Cherokee County, North Carolina. The area of study is shown on the Vicinity Map (Figure 1). The incorporated areas within the county and the Eastern Band of Cherokee Indians lands were excluded from this study.

The areas studied by detailed methods were selected based on the extent and validity of available existing hydrologic and hydraulic data.

Flooding caused by overflow of Martin Creek, Peachtree Creek, Slow Creek, the Nottely River, the Valley River, the Hiwassee River, and Tatham Creek was studied in detail.

Areas having low development potential or minimal flood hazards were previously studied using approximate analyses. The results were shown on the Flood Hazard Boundary Map for Cherokee County, North Carolina (Reference 4) and are incorporated into this Flood Insurance Study.

2.2 Community Description

Cherokee County is in the southwest corner of North Carolina. The county is bordered by Graham County, North Carolina, on the north; Macon County, North Carolina, on the east; Clay County, North Carolina, on the southeast; Fannin and Union Counties, Georgia, on the south; and Polk and Monroe Counties, Tennessee, on the west. Cherokee County is served by U.S. Routes 64, 19, and 129, State Road 60, the Norfolk Southern Railway, and the CSX railroad. The 1980 population of Cherokee County was reported to be 18,933 (Reference 5).

2.3 Principal Flood Problems

The largest flood of record on the Nottely River at the Nottely Dam occurred in September 1898 and had a discharge of 27,000 cubic feet per second (cfs).

Since 1961, the two largest floods experienced in the area occurred in October 1964 and May 1973. The October 1964 flood followed a storm that had occurred a week earlier and caused severe flooding in North Carolina and Georgia along the headwater streams near the Tennessee Valley Divide.

During the second storm, rainfall was heaviest over the Hiwassee River watershed. Damage in Cherokee County was light and generally confined to erosion and road and bridge damage. There was no discharge at the Nottely Dam during the October flood, and the reservoir filled about 18 feet with the flood runoff, which limited damages downstream.

FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

APPROXIMATE SCALE

8 0 8 16 24 MILES

VICINITY MAP

An extremely intense rainstorm swept across the Tennessee Valley on May 27-28, 1973, causing serious flooding over parts of the Tennessee River basin. One area of high rainfall included the extreme headwaters of the Hiwassee, Little Tennessee, and French Broad River basins. In the Hiwassee River basin, the maximum rainfall recorded was 6.47 inches. Damages throughout the watershed were mainly to agricultural land and roadways. At the Nottely Dam, the May flood crest was the highest since closure of the dam in 1942 (Reference 1).

2.4 Flood Protection Measures

Nottely Dam, located on the Nottely River in Union County, Georgia, provides some degree of flood protection and regulates the flood discharges on the Nottely River (Reference 1).

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1-percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

Regional relationships developed by the U.S. Geological Survey (USGS) (Reference 6) were verified and used to estimate the peak discharge frequency on Peachtree, Martin, and Slow Creeks. All stream gage frequency analyses followed standard procedures outlined in Bulletin No. 17B (Reference 7).

For the Valley River at the Town of Andrews, flood discharges were based on stream gage records at the Town of Tomotla. Discharges for Tatham Creek were based on stream gage records from similar watersheds (Reference 3). All stream gage analyses followed standard procedures outlined in Bulletin No. 17A (Reference 8).

Flood discharges on the Nottely River are regulated by the Nottely Dam. Nottely River flood discharges are based on an analysis of stream gage records at the Nottely River miles 20.4 and 44.3, Nottely Reservoir operations from 1942 to 1983 (to determine the probability of spillway discharges), and stream gage records from similar watersheds in the region (to determine flood discharges from the unregulated watershed area downstream of the dam).

Peak discharge-drainage area relationships for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
NOTTELY RIVER					
about 6.5 miles upstream of mouth	N/A	6,800	9,800	11,400	15,500
at southern county boundary	N/A	4,200	5,750	6,650	13,510
MARTIN CREEK					
at mouth	9.0	1,100	2,300	2,800	4,100
at Brasstown Road	N/A	650	1,100	1,400	2,100
PEACHTREE CREEK					
at mouth	18.3	2,200	3,640	4,430	6,340
at upper Peachtree Road	N/A	1,100	1,815	2,220	3,230
SLOW CREEK					
at mouth	N/A	1,100	1,900	2,400	3,500
at Canyon Road	N/A	400	700	875	1,330
HIWASSEE RIVER					
about 1.4 miles downstream of confluence of Peachtree Creek	N/A	N/A	N/A	20,700	24,400
about 1.4 miles upstream of confluence of Peachtree Creek	N/A	N/A	N/A	20,000	23,600
VALLEY RIVER					
at U.S. Route 19	49.4	4,820	7,390	8,630	11,920
TATHAM CREEK					
at mouth	8.41	1,310	2,210	2,720	3,960

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

The hydraulic characteristics of the Nottely and Valley Rivers, and Martin, Peachtree, Slow, and Tatham Creeks were analyzed using the HEC-2 backwater computer program (Reference 9).

For the Nottely River and Martin, Peachtree, and Slow Creeks, cross sections were field surveyed at bridges and other selected locations to define the floodplains of those streams. For the Valley River and Tatham Creek, the cross sections were obtained from field surveys and aerial photographs. A frequency analysis of historical floods was used to study the Hiwassee River.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles and on the Flood Insurance Rate Map.

Roughness coefficients for the channel and overbank areas of the streams studied were determined by engineering judgment and field observation. For the Nottely River, the channel values ranged from 0.040 to 0.045 and the overbank values ranged from 0.070 to 0.130. For Martin Creek, values ranged from 0.045 to 0.060 for the channel and from 0.065 to 0.150 for the overbanks. For Peachtree Creek, values ranged from 0.055 to 0.070 for the channel and from 0.070 to 0.130 for the overbanks. For Slow Creek, the roughness values ranged from 0.045 to 0.060 for the channel and from 0.060 to 0.130 for the overbanks. For the Valley River, the value for the channel averaged 0.055 and the values for the overbanks ranged from 0.055 to 0.140. For Tatham Creek, the value for the channel averaged 0.60 and the value for the overbanks averaged 0.065.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 50- and 100-year flood elevations are close together, due to limitations of the profile scale, only the 100-year profile has been shown.

The hydraulic analyses for this study are based on the effects of unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929 (NGVD). Elevation reference marks used in this study are shown on the map and described in the exhibit labeled Elevation Reference Marks.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages State and local governments to adopt sound floodplain management programs. Therefore, each Flood Insurance Study provides 100-year flood elevations and delineations of the 100- and 500-year

floodplain boundaries and 100-year floodway to assist communities in developing floodplain management measures.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:24000 with contour intervals of 20, 40, and 50 feet (Reference 10).

The 100- and 500-year floodplain boundaries are shown on the Flood Insurance Rate Map. On this map, the 100-year floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AH, AO, A99, V, and VE) and the 500-year floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 100- and 500-year floodplain boundaries are close together, only the 100-year floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 100-year floodplain boundary was delineated using the Flood Hazard Boundary Map for Cherokee County (Reference 4).

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 100-year floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways for this study were designed for optimum benefit to the community. Floodway analyses were based on equal conveyance reduction and adjusted as necessary to account for the effects of existing development and to provide functional and manageable floodways. Floodway widths were computed at cross sections. Between cross sections, the

floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections and are shown in Table 2, Floodway Data. The computed floodways are shown on the Flood Insurance Rate Map. In cases where the floodway and the 100-year floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

Along streams where floodways have not been computed, the community must ensure that the cumulative effect of development in the floodplain will not cause more than 1.0-foot increase in the base flood elevations at any point within the community.

The area between the floodway and the 100-year floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 1.0 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 2.

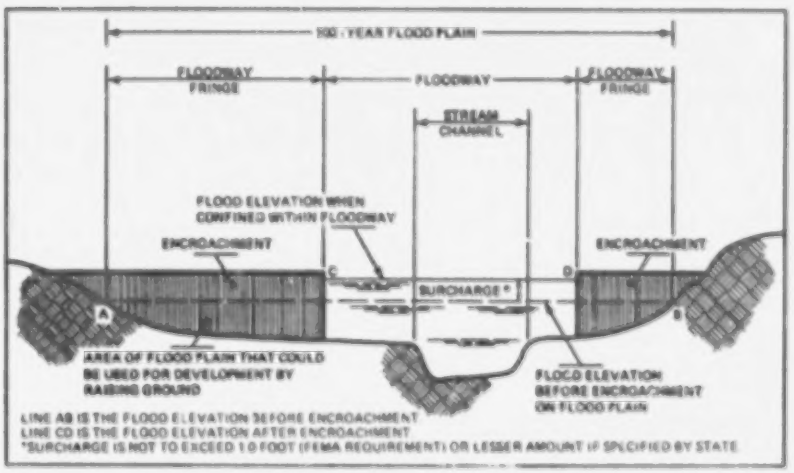

100 - YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE *
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE

FIGURE 2 - Floodway Schematic

5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base flood elevations or depths are shown within this zone.

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
NOTTELY RIVER								
A	6.50	200	1987	5.7	1534.3	1534.3	1535.3	1.0
B	7.00	275	1004	11.3	1545.7	1545.7	1545.7	0.0
C	7.42	300	2257	5.0	1554.0	1554.0	1554.7	0.7
D	7.95	270	2519	4.4	1559.0	1559.0	1559.5	0.5
E	8.44	350	3050	3.6	1561.3	1561.3	1562.0	0.7
F	8.72	160	2180	5.0	1562.7	1562.7	1563.6	0.9
G	9.01	400	3913	2.8	1563.7	1563.7	1564.4	0.7
H	9.25	190	2550	4.2	1564.5	1564.5	1565.3	0.8
I	9.53	400	3676	2.9	1565.3	1565.3	1566.2	0.9
J	10.44	195	2428	4.4	1567.6	1567.6	1568.6	1.0
K	10.90	275	2371	4.4	1569.4	1569.4	1570.3	0.9
L	11.13	550	3340	2.6	1570.4	1570.4	1571.3	0.9
M	11.68	250	1509	5.5	1572.3	1572.3	1573.1	0.8
N	11.96	150	2480	3.4	1574.0	1574.0	1574.6	0.6
O	12.24	250	2691	3.1	1574.7	1574.7	1575.4	0.7
P	13.22	550	3039	2.6	1576.9	1576.9	1577.8	0.9
Q	13.89	650	2899	2.8	1578.0	1578.0	1579.0	1.0
R	14.32	500	3111	2.5	1578.7	1578.7	1579.7	1.0
S	14.76	175	2056	3.8	1579.8	1579.8	1580.7	0.9
T	14.99	100	1519	5.0	1580.6	1580.6	1581.4	0.8
U	15.35	220	1872	4.0	1582.0	1582.0	1582.7	0.7
V	15.73	120	2145	3.4	1583.7	1583.7	1584.3	0.6
W	16.34	175	2080	3.5	1585.5	1585.5	1586.0	0.5
X	16.67	140	1412	5.0	1586.8	1586.8	1587.2	0.4
Y	17.34	110	1165	6.0	1590.8	1590.8	1591.0	0.2
Z	18.06	110	1219	5.5	1595.8	1595.8	1595.9	0.1
AA	18.64	100	1395	4.8	1599.3	1599.3	1599.4	0.1

[1]MILES ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOODWAY DATA

NOTTELY RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
VALLEY RIVER								
A	18.46	150	2083	4.	1729.9	1729.9	1730.9	1.0
B	18.93	320	1988	4.1	1737.0	1737.0	1737.7	0.7
C	19.26	170	1469	5.5	1748.5	1748.5	1748.5	0.0
D	19.55	210	743	10.6	1756.1	1756.1	1756.1	0.0
E	19.87	140	1352	5.7	1769.4	1769.4	1769.8	0.4
TATHAM CREEK								
A	0.04	250	828	3.2	1771.6	1770.1*	1771.1	1.0
B	0.12	120	450	6.0	1777.0	1777.0	1777.1	0.1
C	0.24	65	356	7.6	1782.0	1782.0	1782.8	0.8
D	0.46	40	285	9.4	1795.9	1795.9	1796.9	1.0

FEET ABOVE MOUTH
THIS WIDTH EXTENDS WITHIN AREA NOT INCLUDED
THIS WIDTH IS WITHIN AREA NOT INCLUDED
*ELEVATIONS WITHOUT CONSIDERING BACKWATER EFFECT FROM VALLEY RIVER

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOODWAY DATA

VALLEY RIVER—TATHAM CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
MARTIN CREEK								
A	1.38	60	560	5.0	1561.3	1561.3	1562.1	0.8
B	1.58	185	949	2.9	1563.7	1563.7	1564.7	1.0
C	1.81	95	318	8.7	1567.1	1567.1	1567.4	0.3
D	1.92	60	545	5.0	1573.2	1573.2	1574.0	0.8
E	2.01	60	517	5.3	1574.5	1574.5	1575.5	1.0
F	2.59	60	503	5.3	1584.6	1584.6	1585.4	0.8
G	3.51	80	760	3.1	1602.4	1602.4	1603.1	0.7
H	3.70	300	2098	1.1	1602.8	1602.8	1603.7	0.9
I	3.95	185	808	2.8	1606.5	1606.5	1606.6	0.1
J	4.15	340	1029	2.2	1607.8	1607.8	1608.5	0.7
K	4.23	150	545	4.0	1610.5	1610.5	1611.2	0.7
L	4.38	175	556	3.6	1613.0	1613.0	1614.0	1.0
M	4.70	210	713	2.8	1621.0	1621.0	1621.0	0.0
N	5.13	135	427	4.5	1627.3	1627.3	1627.8	0.5
O	5.31	250	816	2.0	1630.1	1630.1	1631.0	0.9
P	5.41	175	464	3.4	1631.4	1631.4	1632.2	0.8
Q	5.66	190	780	1.9	1638.6	1638.6	1639.0	0.4
R	5.83	105	623	2.4	1644.5	1644.5	1645.4	0.9
S	5.90	175	1012	1.4	1644.9	1644.9	1645.8	0.9
T	6.12	155	964	1.5	1650.1	1650.1	1650.5	0.4

[1]MILES ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOODWAY DATA

MARTIN CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
PEACHTREE CREEK								
A	0.45	200	1479	3.0	1567.6	1567.6	1567.8	0.2
B	0.59	300	1954	2.2	1568.2	1568.2	1568.9	0.7
C	0.95	550	1960	2.2	1571.4	1571.4	1572.4	1.0
D	1.38	190	900	4.8	1580.2	1580.2	1581.0	0.8
E	1.66	500	2256	1.9	1584.6	1584.6	1585.6	1.0
F	2.20	415	1284	2.3	1597.1	1597.1	1597.9	0.8
G	2.35	195	674	4.5	1601.6	1601.6	1602.2	0.6
H	2.59	100	420	7.1	1614.3	1614.3	1615.2	0.9
I	2.78	270	1249	2.4	1623.0	1623.0	1623.0	0.0
J	2.97	190	412	7.2	1629.7	1629.7	1630.7	1.0
K	3.05	260	934	3.1	1634.5	1634.5	1635.4	0.9
L	3.46	150	691	4.1	1659.7	1659.7	1660.6	0.9
M	3.74	120	692	4.0	1673.0	1673.0	1673.0	0.0
N	3.82	140	379	6.8	1676.7	1676.7	1676.9	0.2
O	4.34	180	610	3.9	1710.7	1710.7	1711.6	0.9
P	4.52	100	274	8.4	1722.7	1722.7	1723.0	0.3
Q	4.60	150	510	4.5	1729.7	1729.7	1730.7	1.0
R	4.75	70	224	9.9	1748.8	1748.8	1748.8	0.0

[1]MILES ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOODWAY DATA

PEACHTREE CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
SLOW CREEK								
A	0.20	250	895	2.7	1593.4	1593.4	1594.4	1.0
B	0.66	140	719	2.7	1603.6	1603.6	1604.5	0.9
C	0.77	60	370	5.1	1605.4	1605.4	1606.2	0.8
D	1.13	175	653	2.2	1613.2	1613.2	1614.1	0.9
E	1.41	100	627	2.2	1623.2	1623.2	1623.5	0.3
F	1.61	115	603	2.3	1628.2	1628.2	1628.7	0.5
G	1.66	80	333	4.1	1629.9	1629.9	1630.6	0.7
H	1.90	150	397	3.3	1633.4	1633.4	1634.4	1.0
I	2.37	100	395	2.9	1642.6	1642.6	1643.4	0.8
J	2.62	110	704	1.5	1656.1	1656.1	1657.0	0.9
K	2.80	75	159	6.2	1660.9	1660.9	1660.9	0.0
L	2.96	75	262	3.6	1668.2	1668.2	1668.9	0.7
M	3.15	65	149	5.9	1677.9	1677.9	1678.5	0.6

[1]MILES ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOODWAY DATA

13

SLOW CREEK

Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study by detailed methods. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 100-year floodplain, areas of 100-year flooding where average depths are less than 1 foot, areas of 100-year flooding where the contributing drainage area is less than 1 square mile, and areas protected from the 100-year flood by levees. No base flood elevations or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The Flood Insurance Rate Map is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 100-year floodplains that were studied by detailed methods, shows selected whole-foot base flood elevations or average depths. Insurance agents use the zones and base flood elevations in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 100- and 500-year floodplains, the floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

7.0 OTHER STUDIES

Flood Insurance Studies published for the Towns of Andrews and Murphy, North Carolina; Graham, Macon, and Clay Counties, North Carolina; Polk County, Tennessee; and Union County, Georgia (References 11-17) are in agreement with this study.

This Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for Cherokee County (Reference 4).

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, FEMA, 175 West Jackson Boulevard, 4th Floor, Chicago, Illinois 60604.

9.0 REFERENCES AND BIBLIOGRAPHY

1. Tennessee Valley Authority, Office of Natural Resources and Economic Development, Flood Report TVA/ONREO/AWR-82/25, Floods on Nottely River and Martin, Peachtree, and Slow Creeks in Cherokee County, North Carolina, Knoxville, Tennessee, September 1985.

2. ————, Division of Water Control Planning, Report No. 0-5921R, Floods on Hiwassee River, Valley River, and Peachtree Creek, Vicinity of Murphy, North Carolina, Knoxville, Tennessee, May 1961.

3. ————, Office of Economic and Community Development, Flood Report TVA/OECD/FPM-82/4, Floods on Valley River, Tatham Creek, and Junaluska Creek in the Vicinity of Andrews, North Carolina, Knoxville, Tennessee, August 1982.

4. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Cherokee County, Unincorporated Areas, North Carolina, June 1978.

5. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, Number of Inhabitants, North Carolina, Washington, D.C., February 1982.

6. U.S. Geological Survey, Techniques for Estimating Magnitude and Frequency of Floods for North Carolina, 1976.

7. U.S. Department of the Interior, Geological Survey, Interagency Advisory Committee on Water Data, Office of Water Data Coordination, Hydrology Subcommittee, Bulletin No. 17B, Guidelines for Determining Flood Flow Frequency, September 1981, revised March 1982.

8. U.S. Water Resources Council, Bulletin No. 17A, Guidelines for Determining Flood Flow Frequency, June 1977.

9. U.S. Army Corps of Engineers, Hydrologic Entgineering Center, HEC-2 Water-Surface Profiles, Generalized Computer Program, Davis, California, April 1984.

10. U.S. Geological Survey-Tennessee Valley Authority, 7.5 Minute Series Topographic Maps, Scale 1:24000, Contour Intervals 20, 40, and 50 Feet: Murphy, North Carolina, 1957, photorevised 1973; Persimmon Creek, North Carolina, 1978; Culberson, Georgia-North Carolina, 1941, photorevised 1973; Nottely Dam, Georgia-North Carolina, 1966; Peachtree Creek, North Carolina, 1937, photorevised 1973.

11. Federal Emergency Management Agency, Flood Insurance Study, Town of Andrews, Cherokee County, North Carolina, February 1985.

12. ————, Flood Insurance Study, Town of Murphy, Cherokee County, North Carolina, July 1986.

13. ————, Flood Insurance Study, Graham County, Unincorporated Areas, North Carolina, July 1986.

14. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Macon County, Unincorporated Areas, North Carolina, June 1978.

15. Federal Emergency Management Agency, Flood Insurance Study, Clay County, Unincorporated Areas, North Carolina, July 1981.

16. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Polk County, Unincorporated Areas, Tennessee, January 1979.

17. Federal Emergency Management Agency, Flood Insurance Study, Union County, Unincorporated Areas, Georgia, March 1986.

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
1	0157	1,547.7	60d nail in power pole located 27 feet west of private road, 30 feet from left bank of the Nottely River
2	0176	1,531.9	60d nail in 12-inch red oak tree 60 feet from left bank of the Nottely River, 1,500 feet upstream of Crowder Bluff
3	0176	1,555.2	60d rail in 12-inch maple tree 300 feet from left bank of the Nottely River, approximately 750 feet west of CSX railroad
4	0176	1,563.7	60d nail in power pole 200 feet from left bank of the Nottely River, approximately 550 feet west of CSX railroad
5	0176	1,565.2	60d nail in power pole 10 feet from southeast edge of road, approximately 650 feet west of CSX railroad
6	0159	1,598.3	chiseled square painted "BM 1598.38" on left downstream wingwall of eastbound U.S. Route 64 bridge over the Nottely River
7	0159	1,565.3	chiseled square at northwest corner of north end of east stone abutment of CSX railroad bridge over the Nottely River, 2,600 feet upstream of U.S. Route 64
8	0159	1,569.1	bolt on curb of right upstream wingwall of CSX railroad bridge over Dickey Branch
9	0159	1,569.9	60d nail in 36-inch poplar tree located 50 feet from west bank of the Nottely River, 1,600 feet upstream of confluence of Rapier Mill Creek
10	0159	1,570.9	60d nail in 14-inch beech tree located 10 feet from west bank of the Nottely River, 1,300 feet downstream of State Road 60

ELEVATION REFERENCE MARKS

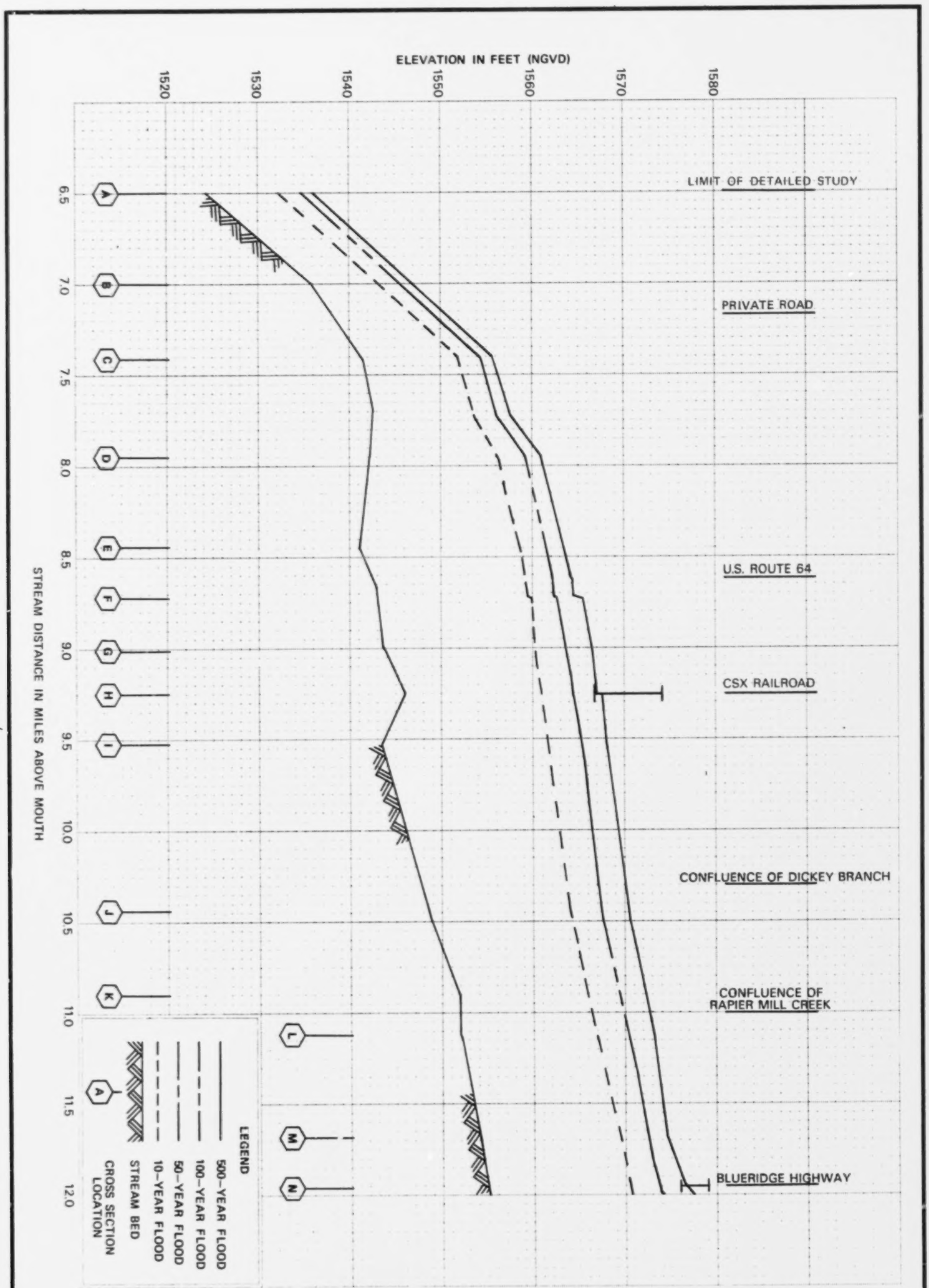
REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
11	0159	1,577.5	60d nail in 12-inch birch tree located 40 feet from north bank of the Nottely River, 2,100 feet southeast of Blue Ridge Highway
12	0159	1,587.6	60d nail in 6-inch maple tree located 130 feet from north bank of the Nottely River, 4,300 feet southeast of about 1 mile downstream of Cook Creek Bridge Road
13	0159	1,581.1	60d nail in 6-inch birch tree located 20 feet from south bank of the Nottely River, about 1,500 feet downstream of Cook Creek Bridge Road
14	0167	1,582.1	chiseled square on left downstream wingwall of SR 1598 bridge over the Nottely River, about 0.5 mile upstream of confluence of Owenby Creek
15	0178	1,581.2	60d nail in 12-inch birch tree located near left bank of the Nottely River, 1,500 feet upstream from Cook Creek Bridge Road
16	0178	1,588.8	60d nail in power pole 200 feet from right bank of the Nottely River, 4,800 feet upstream of Snowhill Road
17	0178	1,592.9	60d nail in power pole located 100 feet from right bank of the Nottely River 25 feet upstream of confluence of Cobb Creek
18	0186	1,595.1	60d nail in 6-inch cherry tree located on left bank of the Nottely River 1,900 feet upstream of confluence of Cobb Creek
19	0186	1,598.9	60d nail in 12-inch cherry tree located 5 feet from right bank of the Nottely River 400 feet upstream of county boundary

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
20	0114	1,570.9	chiseled square on upstream wingwall of Martin Creek Road bridge over Martin Creek
21	0177	1,607.2	60d nail in pole located on right bank of Martin Creek 50 feet from Martin Creek Road
22	0177	1,644.1	chiseled square on left downstream headwall across from intersection of Martin Creek Road and SR 1517
23	0179	1,542.1	chiseled square on left downstream headwall of Martin Creek Road bridge, 1,800 feet upstream of Brasstown Road over Martin Creek
24	0179	1,649.1	right downstream curb bolt 50 feet upstream of Brasstown Road
25	0118	1,569.0	chiseled square on east end of north headwall of large concrete culvert at Hayesville Highway about 2,250 feet upstream of Peachtree Creek mouth
26	0118	1,567.7	60d nail in 12-inch maple tree at left bank of Peachtree Creek, 1,100 feet northeast of Hayesville Highway
27	0118	1,581.8	60d nail in 8-inch cherry tree 15 feet from left bank of Peachtree Creek, 1,000 feet northwest of Peachtree Marble Bum Poodle Bomb Proof Road
28	0118	1,603.2	left downstream curb bolt on Lloyd Hendrix Road bridge over Slow Creek
29	0119	1,624.3	standard cap set on concrete headwall over Peachtree Creek on Peachtree Marble Bum Poodle Bomb Proof Road
30	0119	1,657.5	60d nail in beech tree located 15 feet from end of bridge on left bank of Peachtree Creek, 1,350 feet downstream of Mission Road bridge

ELEVATION REFERENCE MARKS

REFERENCE MARK	FLOOD INSURANCE RATE MAP PANEL	ELEVATION (FEET NGVD)	DESCRIPTION OF LOCATION
31	0119	1,702.6	60d nail in 20-inch poplar tree located 15 feet from right bank of Peachtree Creek, 3,150 feet upstream of Mission Road bridge
32	0117	1,634.3	60d nail in 8-inch willow tree 25 feet from left bank of Slow Creek, 380 feet east of Peachtree Marble Bum Poodle Bomb Proof Road
33	0117	1,641.2	60d nail in twin 3-inch sycamore trees 15 feet from left bank of Slow Creek, 100 feet east of Peachtree Marble Bum Poodle Bomb Proof Road
34	0117	1,684.9	chiseled square on northeast corner of Cannon Road Baptist Church sign near intersection of Peachtree Marble Bum Poodle Bomb Proof Road and SR 1527



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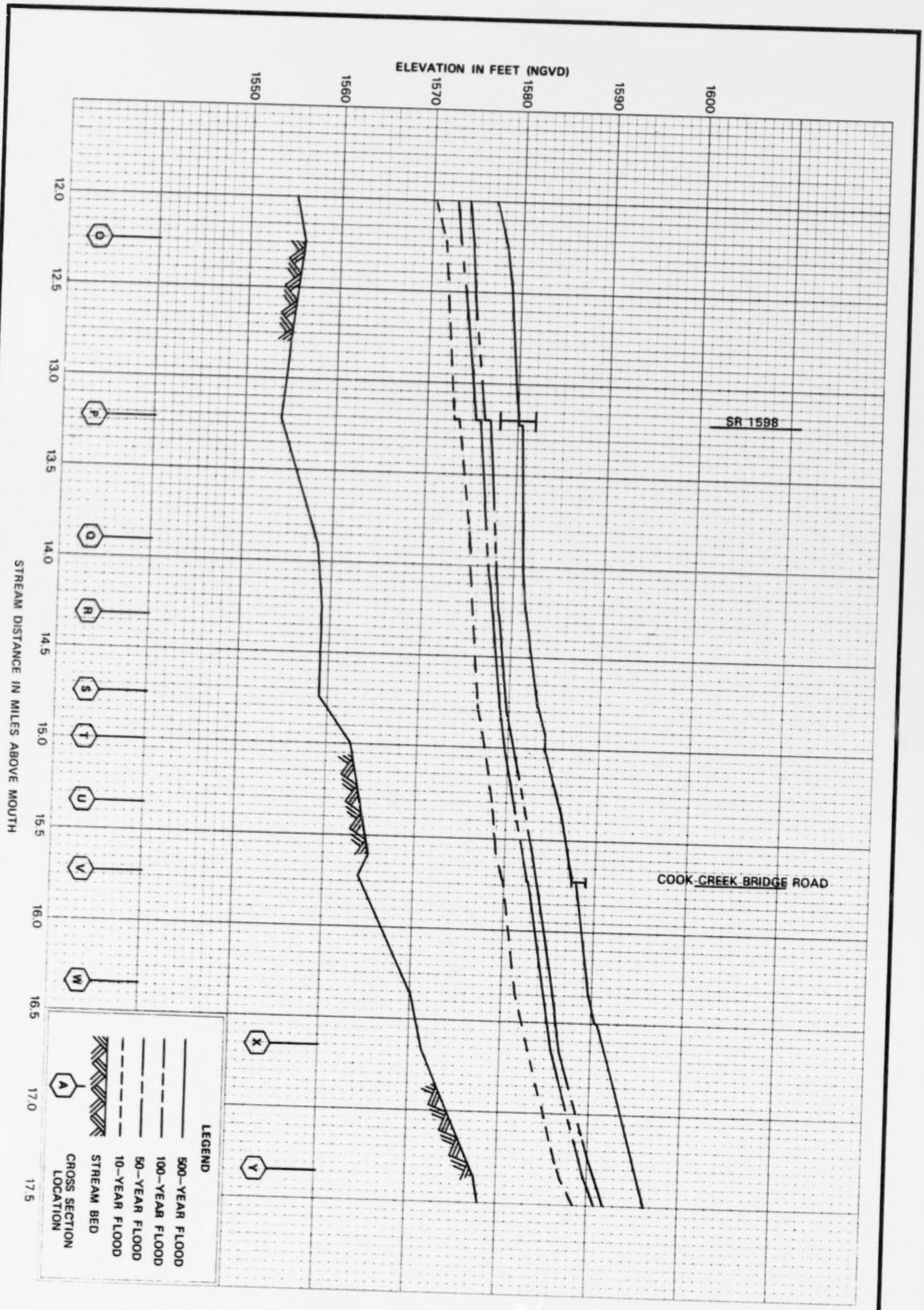

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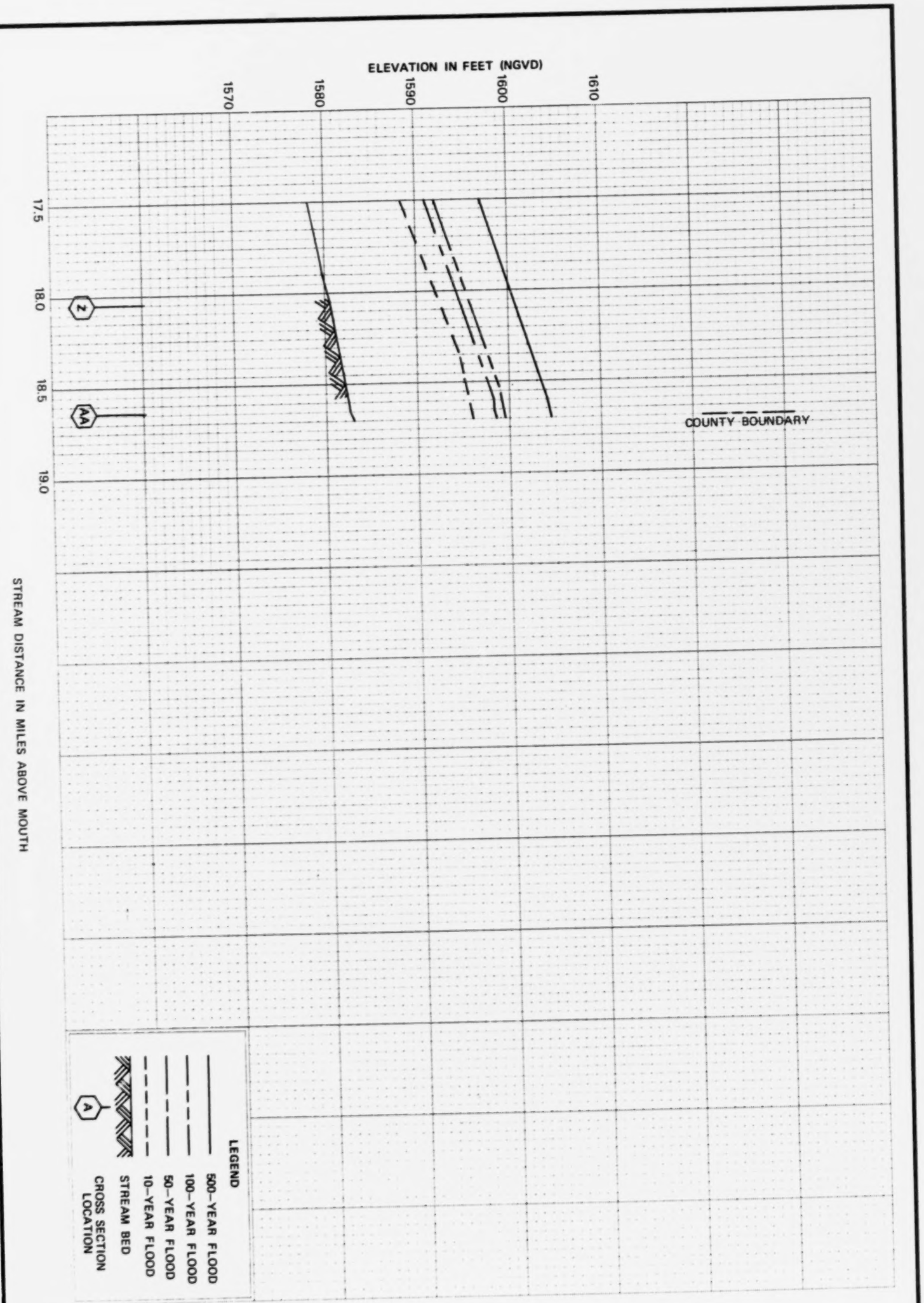
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

NOTTELY RIVER



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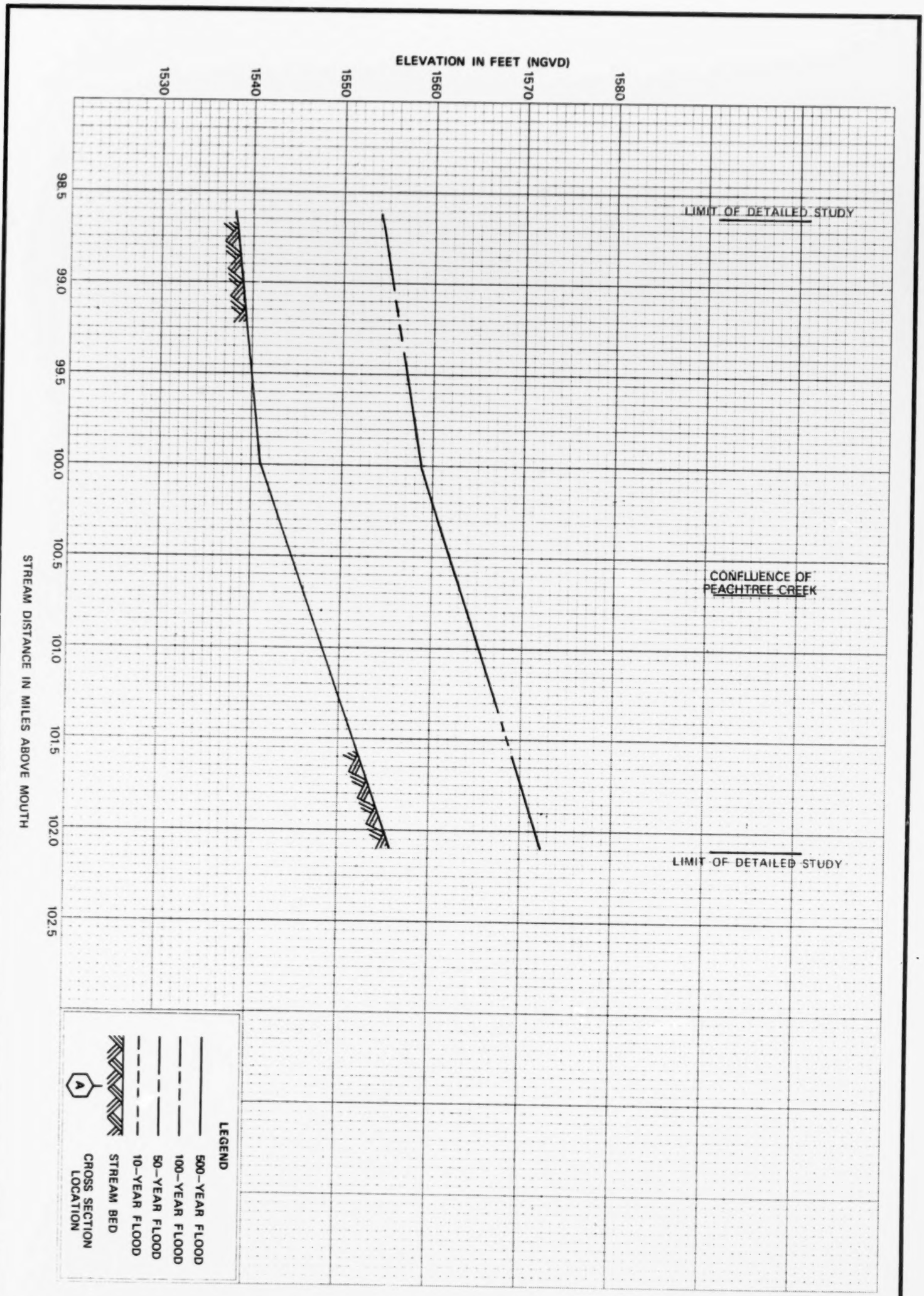

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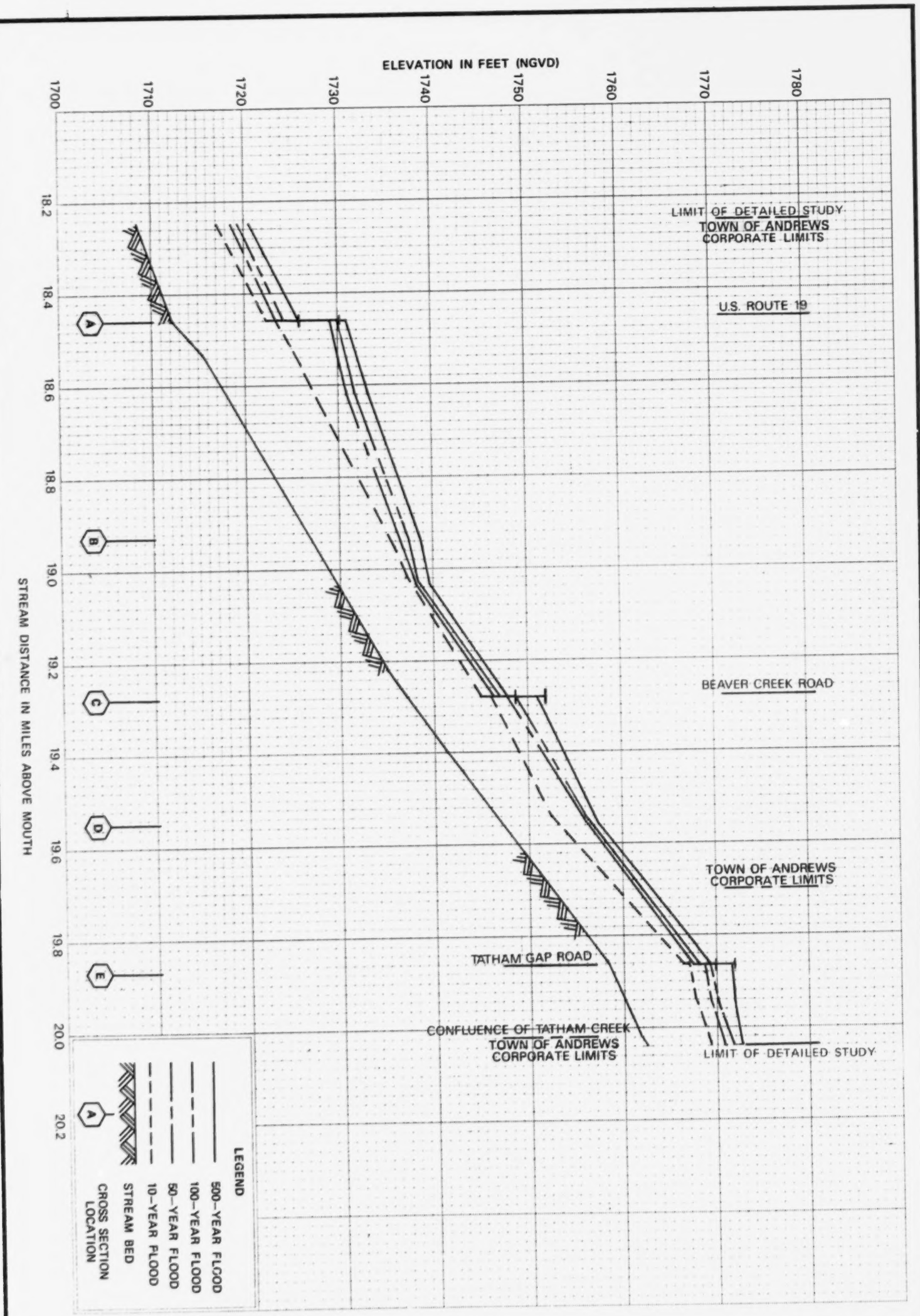
04P

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

HIWASSEE RIVER



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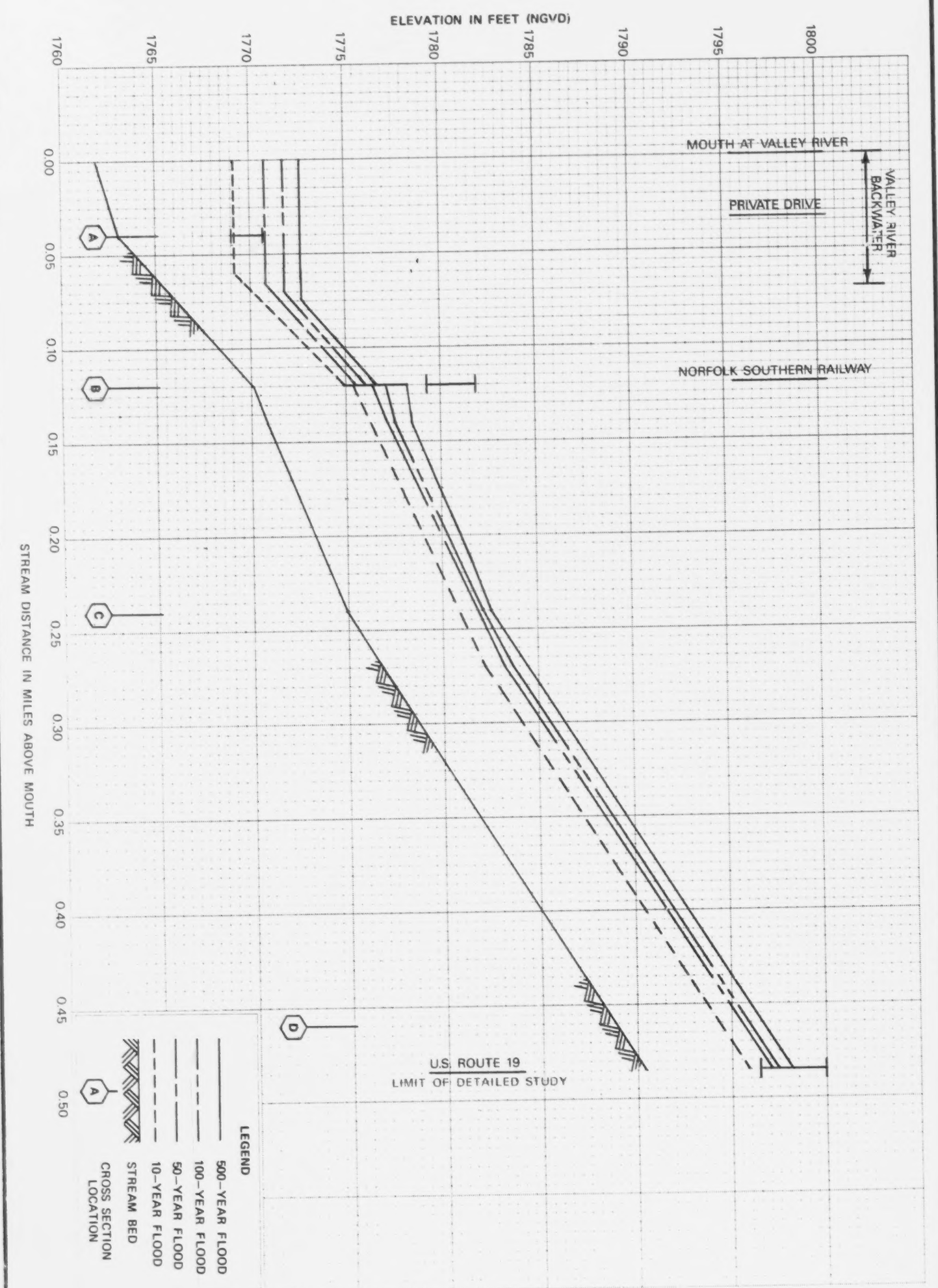
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

VALLEY RIVER



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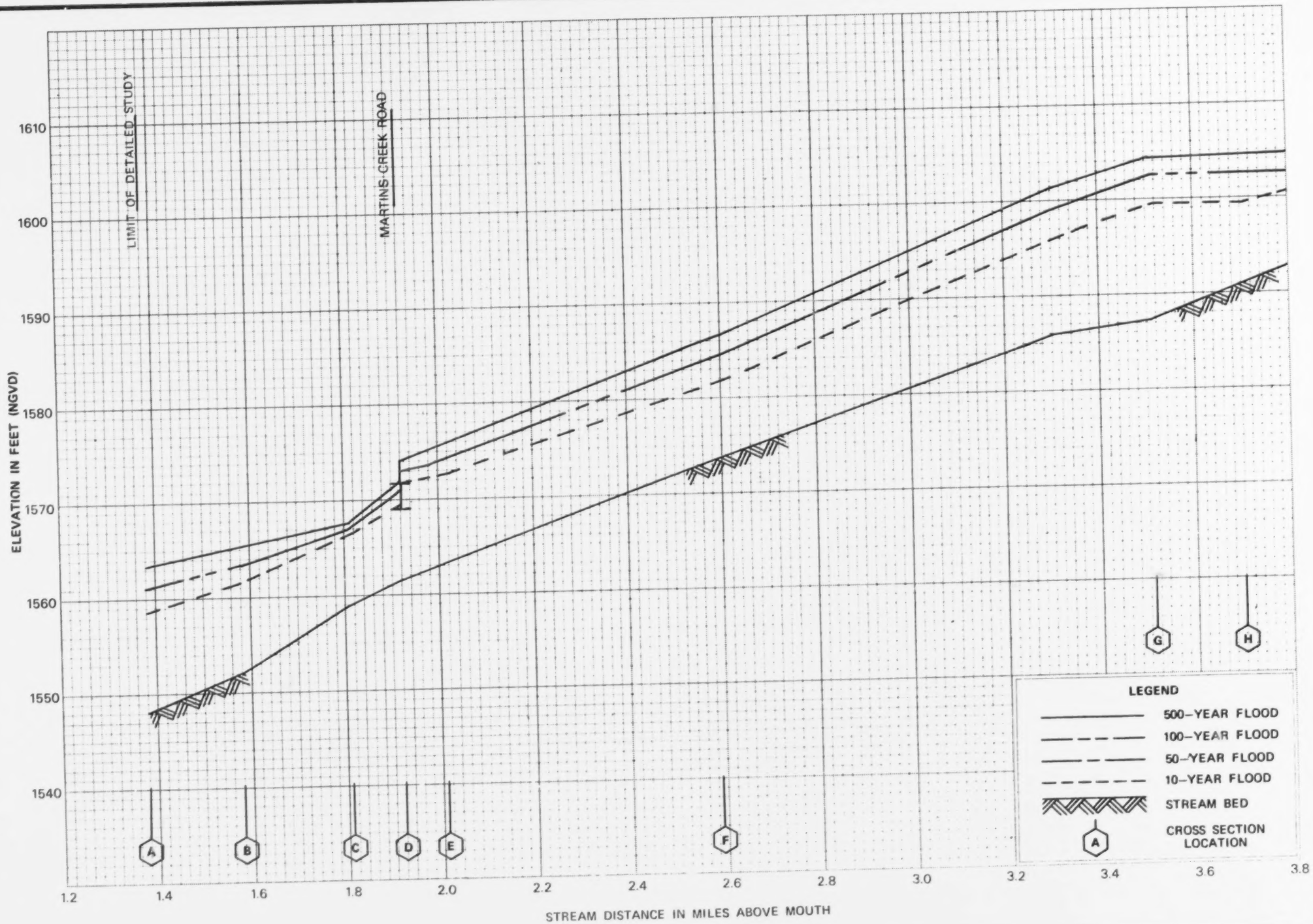
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

TATHAM CREEK



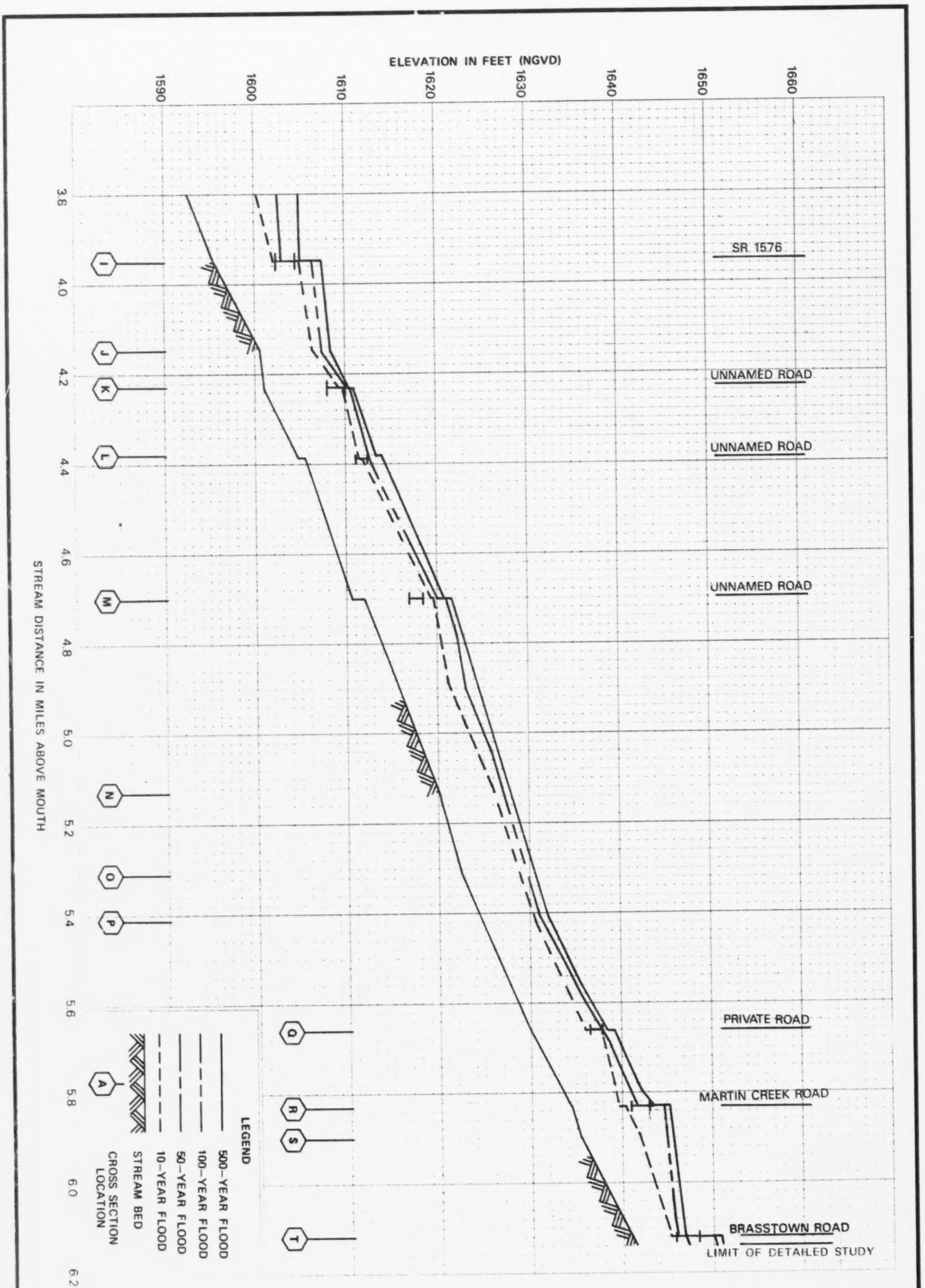
FLOOD PROFILES

MARTIN CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

07P



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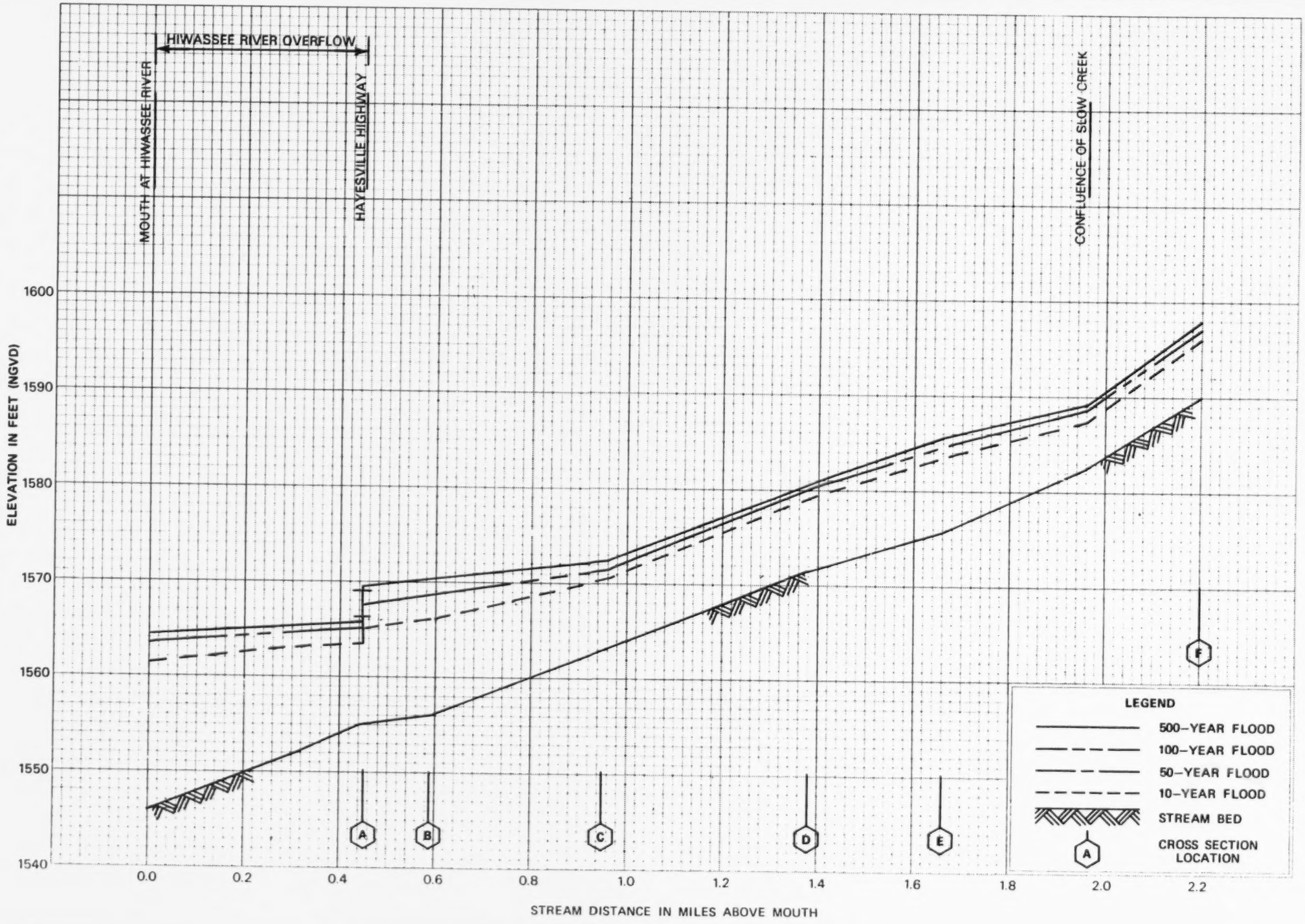
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

MARTIN CREEK



FLOOD PROFILES

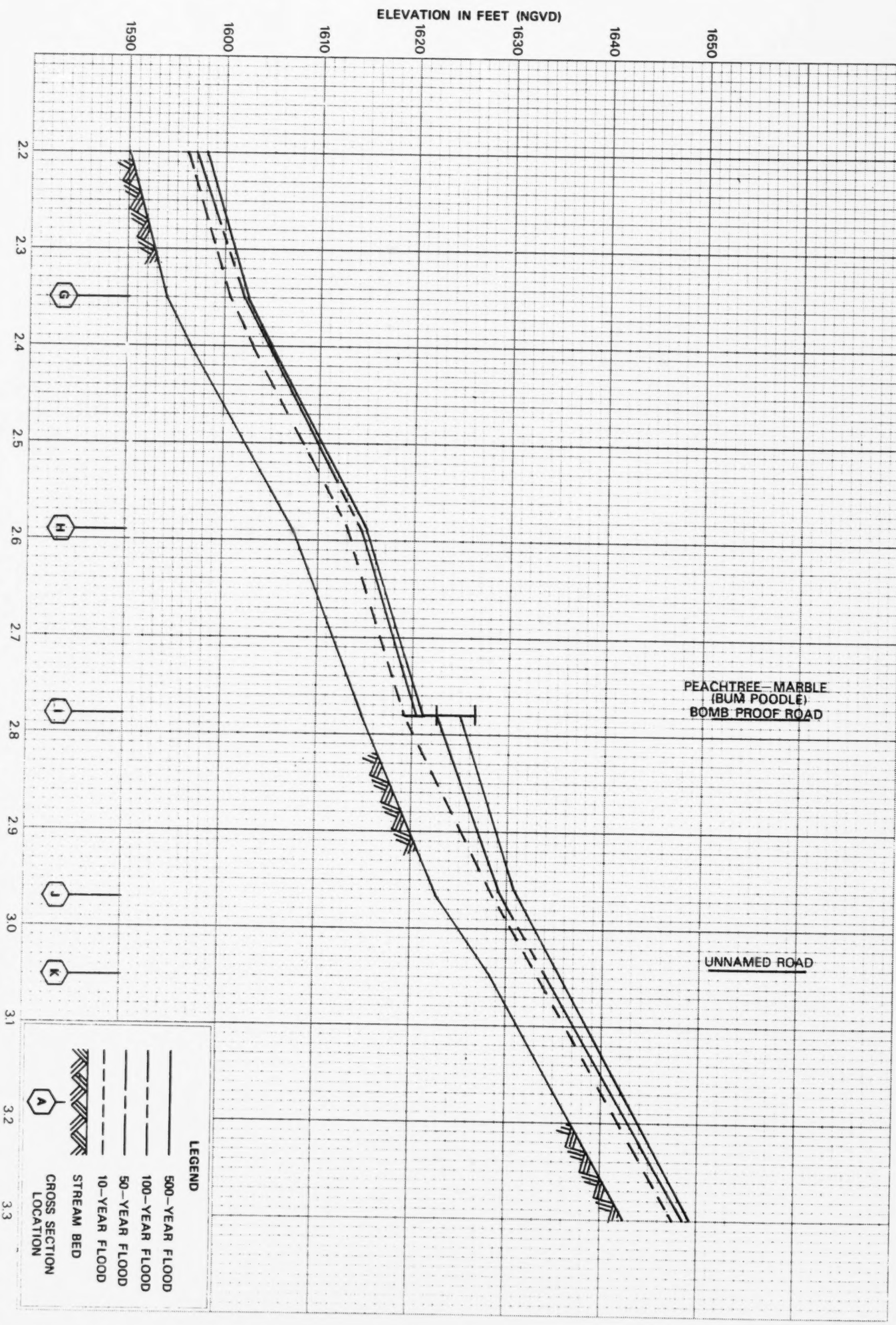
PEACHTREE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC

(UNINCORPORATED AREAS)

09P



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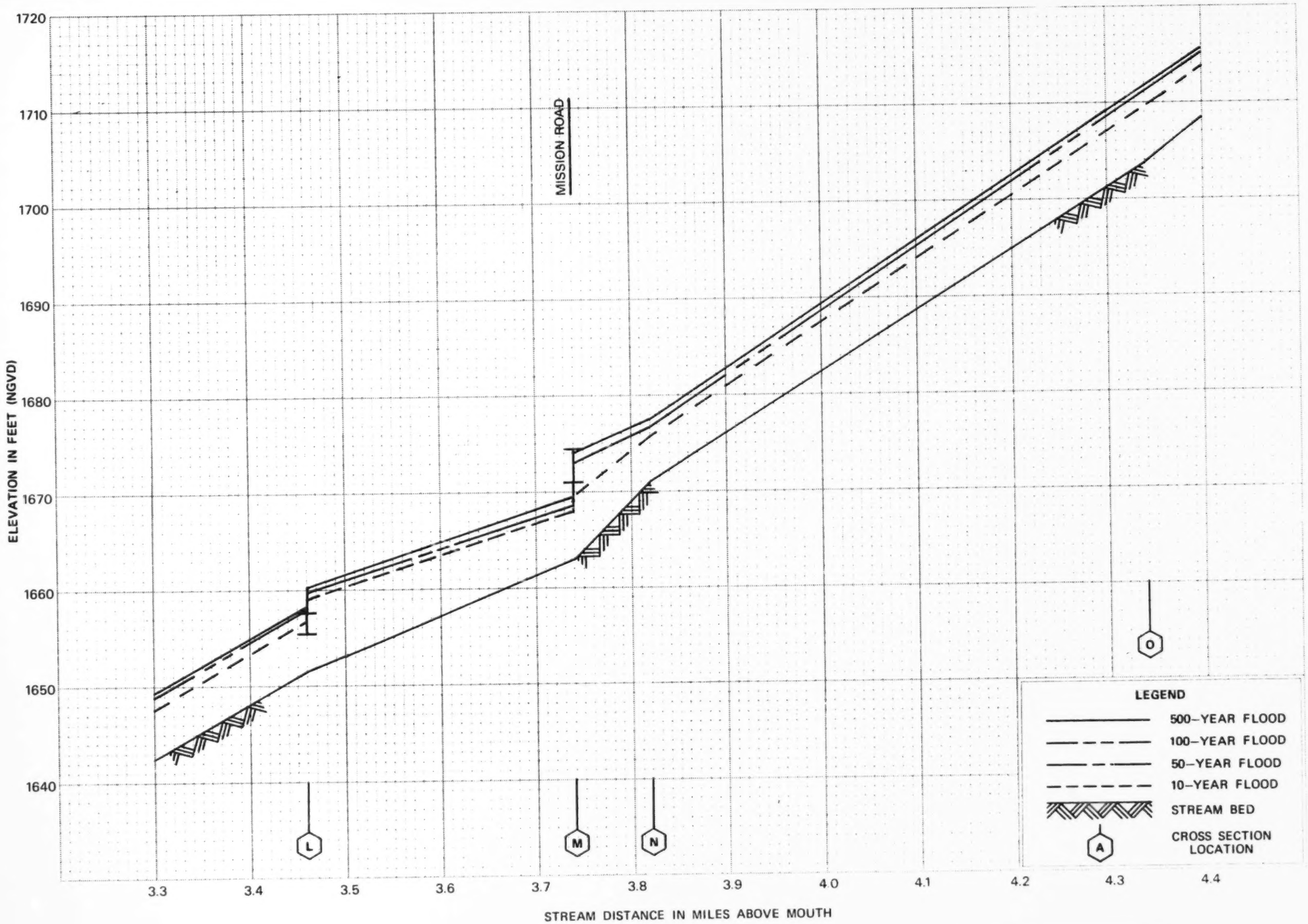
FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

PEACHTREE CREEK



FLOOD PROFILES

PEACHTREE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

11P

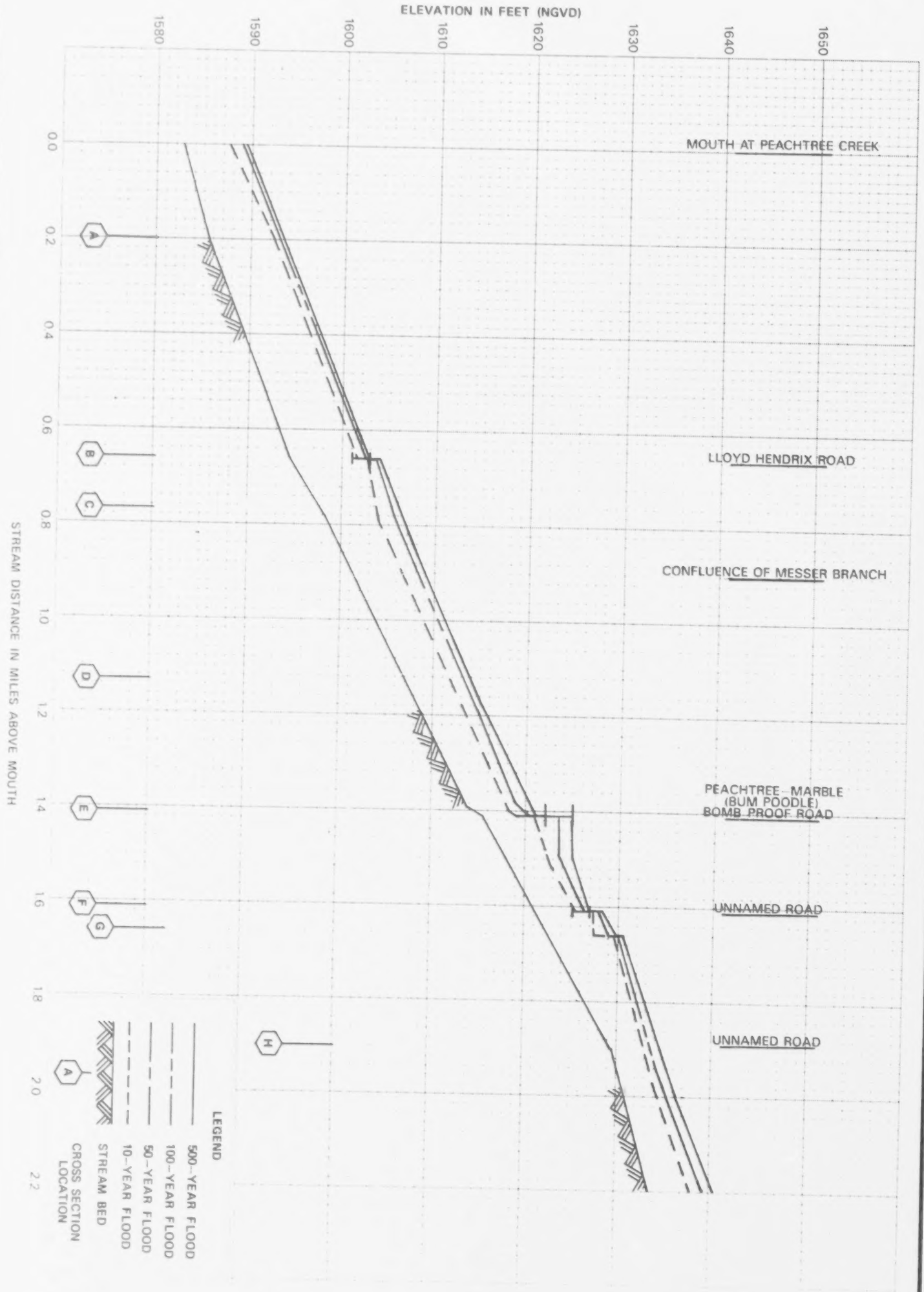
FLOOD PROFILES

PEACHTREE CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

12P



13P

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)

FLOOD PROFILES

SLOW CREEK

FLOOD PROFILES

SLOW CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CHEROKEE COUNTY, NC
(UNINCORPORATED AREAS)